

**In the Claims:**

This listing of the claims will replace all prior versions, and listings, of claims in the application.

**Listing of the Claims:**

1. (currently amended) A method for reducing tumor mass comprising the step of administering to an individual suffering from cancer an amount of a Herpes simplex virus (HSV) comprising a modified HSV genome wherein said modification comprises a modification of an inverted repeat region of said HSV genome such that only one  $\gamma$ 134.5 gene ~~remains intact expresses an active gene product~~, said amount of HSV being effective to reduce tumor mass.
2. (currently amended) The method of claim 1 wherein the modification of the inverted repeat region of the genome comprises an alteration ~~of a copy of a  $\gamma$ 134.5 gene which renders that copy of the gene incapable of expressing an active gene product such that the region is rendered incapable of expressing an active gene product from only one copy each of ICP0, ICP4, ORFO, ORFP, and  $\gamma$ 134.5.~~
3. (currently amended) The method of claim 2 wherein the ~~alteration modification of the  $\gamma$ 134.5 gene~~ comprises an insertion of a DNA sequence comprising one or more nucleotides ~~into the coding region or regulatory region of the gene~~.
4. (currently amended) The method of claim 2 wherein the ~~alteration modification of the  $\gamma$ 134.5 gene~~ comprises a deletion ~~of all or part of the coding region or regulatory region of the gene~~.
5. (currently amended) The method of claim 1, 2, 3, or 4 wherein the modified HSV genome further comprises ~~an alteration in a unique region of the HSV genome deletion of a gene selected from the group consisting of  $\alpha$ 0, U<sub>L</sub>2, U<sub>L</sub>3, U<sub>L</sub>4, U<sub>L</sub>10, U<sub>L</sub>11, U<sub>L</sub>12, U<sub>L</sub>12.5, U<sub>L</sub>13, U<sub>L</sub>16, U<sub>L</sub>20, U<sub>L</sub>21, U<sub>L</sub>23, U<sub>L</sub>24, U<sub>L</sub>39, U<sub>L</sub>40, U<sub>L</sub>41, U<sub>L</sub>43, U<sub>L</sub>43.5, U<sub>L</sub>44, U<sub>L</sub>45, U<sub>L</sub>46, U<sub>L</sub>47, U<sub>L</sub>50, U<sub>L</sub>51, U<sub>L</sub>53, U<sub>L</sub>55, U<sub>L</sub>56,  $\alpha$ 22, U<sub>S</sub>1.5, U<sub>S</sub>2, U<sub>S</sub>3, U<sub>S</sub>4, U<sub>S</sub>5, U<sub>S</sub>7, U<sub>S</sub>8, U<sub>S</sub>8.5, U<sub>S</sub>9, U<sub>S</sub>10, U<sub>S</sub>11,  $\alpha$ 47, Ori<sub>S</sub>TU, and LATU.~~

6. (Original) The method of claims 1, 2, 3, or 4 wherein the cancer is a noncentral nervous system cancer.
7. (Original) The method of claim 1, 2, 3, or 4 wherein the cancer is a central nervous system cancer.
8. (Original) The method of claim 5 wherein the cancer is non-central nervous system cancer.
9. (Original) The method of claim 5 wherein the cancer is a central nervous system cancer.
10. (new) The method of claim 5 wherein the gene is selected from the group consisting of U<sub>L</sub>16, U<sub>L</sub>24, U<sub>L</sub>40, U<sub>L</sub>41, U<sub>L</sub>55, U<sub>L</sub>56,  $\alpha$ 22, U<sub>S</sub>4, U<sub>S</sub>8, U<sub>S</sub>11.
11. (new) The method of claim 5 wherein the HSV comprises deletions of U<sub>L</sub>24 and U<sub>L</sub>56.
12. (new) The method of claim 3 wherein the DNA sequence encodes HSV-2 glycoproteins G, J, D, and I.
13. (new) The method of claim 8 wherein the modified HSV is R7020.
14. (new) The method of claim 9 wherein the modified HSV is R7020.
15. (new) The method of claims 1, 2, 3, or 4 wherein the HSV genome comprises an insertion of an expressible non-natural protein coding sequence under the control of a herpes simplex virus promoter.
16. (new) The method of 2 wherein the modified HSV is administered to the tumor by direct injection.